

SCANNED  
2/20/14

October 11, 2000

Memorandum to: Ed Mussler, Permitting Engineer

From: Ellen Lorscheider, Hydrogeologist *EL*

Subject: International Paper Riegelwood Industrial Landfill Columbus  
County  
Site Suitability

The Solid Waste Section completed a review of the hydrogeologic portion of the site application and sent comments to Mr. Kreul of International Paper Company on March 27, 2000. This Section received a response to the comments on June 8, 2000. The response is considered to be satisfactory in clarifying the several comments and questions which were addressed in the March letter. No further hydrogeological work will be needed in order to satisfy the rules .0503 (1) and (2) at this time.

This statement of suitability does not predetermine that all portions of this property are deemed appropriate for landfilling activities. Each phase will be evaluated during the design process as to whether or not landfilling can be performed and what, if any, engineering is deemed appropriate to achieve that purpose. Additional investigations may be necessary in order to obtain a permit to construct an industrial landfill on portions of this property. In particular the following needs to be addressed during the design phase(s):

- 1) The area in the western portion of the site is questionable as to its use as an area of landfilling because of the stream, possibly intermittent, which dissects the property. The groundwater table has also not been characterized and may be within 4 feet of the ground surface. It is our understanding that this area will not be developed for landfilling, until the capacity in the eastern landfill phases is exhausted.
- 2) Further characterization will be necessary concerning the underlying Pee Dee formation to evaluate its settlement properties.
- 3) It has not been clearly shown whether the aquifer is discharging or recharging, and the variance of these characteristics across the site.
- 4) The seasonal high groundwater surface in the area of Phase 1 and 2 needs to be established during the design phase using site specific data. There are not any piezometers within these two proposed phases, although I understand that some will be installed in the future.
- 5) The monitoring system will need to be designed so that monitoring wells are spaced with consideration of the dispersive characteristics of the aquifer.